Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Broad, Overarching Comments						
Need for additional opportunities for mitigation to meet new regulations trading?	X					
Need to build WIPs using the most cost-effective methods and then share the cost across society equitably.	x					
Require broad based consensus programs – for example, prescriptive, restrictive residential fertilizer program.						
Use Floating Wetlands(TM) to mitigate nutrient pollution in stormwater and wastewater runoff.				Х		
Regulate and enforce programs that are currently poorly enforced on operate on a voluntary basis through the use of a "corps of enforcers," strong financial and other incentives and strong financial disicentives.					Х	
Take a holistic view of the water quality situation so that new projects are required to show how water quality will be improved before being approved.						
Answer lingering local government questions about the TMDL process and provide them with the resources and guidance needed for implementation.			х			
MDE and DNR should better learn how to use non-profit organizations to attract property owners, who are one of the biggest sources of pollution, to the conservation table.	х					
Do stream restoration projects, major septic and sewer overhauls, conduct community education everywhere, and provide business incentives.	х					
Continue the voluntary approach.	Х					

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Do not require the agriculture community to do more when it is already meeting its goals because Maryland is falling short of its statewide goals because of other sector areas.	х					
Practices in the 2-Year Milestones and subsequently the WIPs need to be realistic and achievable as well as consideration for operation and maintenance costs.	х					
Continue to develop and strengthen communication and public education campaigns.			Х			
Take a systematic approach to bay restoration and implement appropriate practices.	Х					
State needs to be bold and change the paradigm to create incentives for redevelopment and disincentives for new development.	х					
Need a coordinating framework for state agencies and developers to work together to get new ideas vetted through the group and move forward on actions as a united front.	х					
Increase inspections, more enforcement and stricter penalties/fines for violators.					Х	
More technical and financial assistance is needed.					Х	
Include alternative technologies such as algal turf scrubbers and floating wetlands to redcue nutrient/sediment inputs.				Х		
Make sure an adjustment is made to reflect the need for downstream areas to "tighten their belts" so that less affluent areas have the growth potential and opportunities they need to become vibrant and sustainable. Areas that have already received growth opportunities that contribute greatly to the pollution problem should be asked to sacrifice for the more economically disadvantaged areas, not vice-versa.	х					

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Form a partnership between PA and MD that focuses education and outreach resources on shared watersheds and headwater streams so that we're pulling on the same end of the rope.						
Pollutant removal from Urban land is much more costly than pollutant removal from ag land and wastewater, so we should focus on the less costly option.	х					
Discrete, performance-based targets for nutrient and sediment reductions from all nonpoint sources to improve water quality, including all BMPs, should be required in your WIP, and assessments of those BMPs and reduction targets should be required to be conducted by independent third-party entities to assure effectiveness and proper implementation.						
Reducing nonpoint source loads from agricultural operations, including any necessary new regulations and better enforcement, should be part of the WIP. These must include readily enforceable mechanisms. The required "reasonable assurances" that your state will meet nonpoint source load limits dictate strong, verifiable measures to reduce agricultural nutrients and sediment loads. Assuring monitoring efforts at a reasonable scale for nonpoint source pollutants from agriculture is essential. The monitoring results should be available to the public. The implementation of Best Management Practices (BMPs) needs to be publicly reported at a parcel scale.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Maryland's WIP should include requirements to implement measures, including BMPs, throughout each waterway segment in Maryland of the 92 designated by the EPA for the entire Bay watershed. Maryland's WIP should include detailed sanctions for any source that fails to meet the TMDL limits and two-year milestones. It appears illogical and unfair to punish another sector if it meets the targeted caps while leaving nonpoint sources without any realistic and certain sanctions. It would be much more effective for the state to develop regulatory sanctions against nonpoint sources with assured enforcement.						
Your WIP should adopt measures to assure that existing Clean Water Act and other water quality laws are fully enforced, including at all WWTPs.						
Provide more personnel for implementing milestones. Provide incentives to encourage developers to continue to invest in region given new regulations and requirements.						
WIP must not be an unfunded mandate; placing costs on small jurisdictions functions like a regressive tax.						
Accuracy of compliance records needs to be validated. Make sure that implementation strategies are applicable to a given geographic area—must be flexible.						
Publicize success stories through email news groups and local organizations Watershed groups can assist NRCS and other stakeholders with education and outreach.						
Streamline the nutrient management process.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
				Re	en [
SCWQ plans should have mandatory elements similar to nutrient management plans, including record-keeping.						
Extend Trust Fund to all areas; targeting is unfair if Bay TMDL must be achieved everywhere.						
Need more high quality consultants in the area working on implementation.						
Establish a date by which landowners need to actually implement BMPs in order to receive tax breaks.						
Link State tax reductions to BMPs.						
Fee in lieu forest money could be used on private lands to meet goals.						
Funding for additional staff for long-term maintenance and monitoring of BMPs.						
Need to track practices that currently don't have efficiencies in Bay model						
Find a way to have new BMPs accepted which currently aren't accounted for.						
Need guidance for groups to enable them to take credit for all new BMPs implemented.						
Provide workshops for local governments on tracking BMPs with GIS, etc.						
Permit reviews must take TMDLs into account.						
Reduce duplication of effort; improve lines of communication between stakeholder groups.						
Improve enforcement of current and future sediment and erosion control practices.						
Watershed Stewards Academy could be a gap closer to help prompt citizen						
involvement.						
Consider allowing demolition of vacant properties as a credit.						
Reinforce existing regulations, effective enforcement.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Focus implementation on areas that need it most – triage						
Focus on most effective BMPs						
Incentives for citizens/homeowners similar to Ag incentives, e.g., fertilizer, buffers.						
Financial incentives – tax reduction and tax credits for citizens/homeowners						
Nutrient management plans for homeowners						
Make federal government accountable for compliance on federal lands						
Need institutional milestones as well as implementation milestones, e.g., reducing permit backlog.						
Include low-cost solutions and behaviors to meet objectives, e.g., reducing lawn fertilizer.						
Consider making more voluntary programs mandatory.						
Need adequate monitoring to show we are actually meeting the milestones.						
Need to monitor for effectiveness of restoration projects and other BMPs.						
Need to incorporate existing watershed plans in WIP process.						
Need to reduce regulatory barrier between storm water and forest conservation.						
Need state wide numeric water quality standards for nutrients. Need robust monitoring						
requirements in permits. Should raise permit fees which could help pay for more						
inspection and monitoring.						
Expand critical areas state-wide.						
Create mechanism for local governments to do a critical assessment of restoration opportunities.						
Work with inner city youth to help implement BMPs.			_			

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Hold polluter/ source responsible for pollution. Hold them proportionally responsible						
for pollution. Allow counties flexibility to address loads.						
Reevaluate existing county plans. Need to include all Stakeholders including NGOs in WIP process.						
Need to have a multi day research conference to discuss WIP issues and solve						
problems.						
Encourage urban watershed management plans to provide funding mechanism for WIP implementation and restoration projects.						
State needs to mandate implementation, as some counties lack political will.						
Reevaluate current watershed plans.						
Make sure elected officials are educated on WIPs and include these plans in their budgets. Done before and after elections.						
Need to ensure that next administration at state level still supports the WIPs and fully carries them out.						
Indentify incentives in system for compliance and costs and sanctions for non compliance.						
Make the WRE consistent with state planning law (inappropriate loading rates within the WRE).						
Balance needs to be struck between environment and the economy. Development helps fund these WIP efforts. Don't throw baby out with the bath water!						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Stormwater Management						
TMDL and WIP need to have a clear definable process in relationship to the Clean Water Act's MS4 permitting requirements. We cant keep writing permits that violate TMDL's.	x					
Permits need to have better enforcement.	Х					
Raise NPDES permit fees to cover cost of evaluating, monitoring and enforcing permits; raise fines for violations based on new statutory maximize; and include special penalties for chronic violators. Need better monitoring of best management practice implementation to reinforce the					Х	
modeling efforts.	Х					
Need to provide training for implementers of Environmental Site Design;	x					
Give locals a greater range of options for implementing BMPs to comply with the TMDL including stream restoration. Need better cost-effectiveness of BMPs data.	x					
Pay close attention to cost implications to the developers implementing new stormwater management regulations.	x					
Expand "green" card program to require CPE/re-certification.			Х			
Encourage do-it-yourself programs such as rain garden making and volunteer 'de-paving' projects.			х			
BMP's should include sanctioned and test nutrient removal rate percentages so communities and homeowners can be assured their home BMP's get nutrient removal credit in NPDES MS4's, etc. Homeowner's should be fostered to help maintain nutrient reduction goals; jurisdictions can also get credit against their MS4/TMDL caps.			x			

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Require LEED and other sustainable approaches for redevelopment proposals, but lessen the regulatory requirements in current and proposed stormwater management regulations. Appropriately designed redevelopment would actually lower existing nutrient contributions from the existing development pattern.				х		
Incorporate a sliding scale of streamlined stormwater management and other best practices with lower requirements for TOD, TND and other developments that meet certain Smart growth requirements. Any such development will have offsetting benefits for reduced VMT, impervious surfaces and other environmental impacts otherwise associated with new development.				х		
Opportunities for stream restoration and stabilization should be recognized as water quality benefit and the permitting process should be streamlined.	х					
Review and provide feedback on Annual Reports from MS4 permitted jurisdictions. Hold jurisdictions that do not submit reports or do not meet permit requirements accountable. Failure to submit annual reports or fulfill MS4 permit requirements should result in stiff fines and/or building moratoriums.	x					
Conduct a review/audit of existing storm water programs to identify where gaps in implementation exist.	х					
Either stop the Intercounty Connector or at least have the contractors use better sediment controls. The ICC is now a major polluter of the headwaters of the Anacostia and Potomac Rivers.					х	
For every acre of development that is allowed, require 2 acres of offsetting BMPs for water quality control. (2 recommended this.	х					
Inspect the work of contractors who are working streamside.	X					

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Implement a cap on percentage of impervious lot coverage statewide for all new development and any redeveloped sitesincluding single family development.	х					
MDE should provide training for all local sediment and erosion control permits staff on new MDE regulations concerning stormwater management BMPs and environmentally sensitive design requirements.			х			
Send postcards similar to Anne Arundel County recycling cards with watershed size and location leading to Bay. Suggest rain gardens with Web site how-to address; rain barrels and where to buy; permeable driveways with Web addresses, tree planting program, etc. Send emails with same information. Repeat every six months.			х			
Accelerate the upgrade of all Phase I and Phase II MS4 permits (2 people recommended this).	х					
Using the 95% percent rainfall event criteria is not feasible on certain soils.				Х		
Retrofit existing commercial and residential areas with conservation landscaping, bioretention, dry wells, rain barrelsMake the landscape functional for stormwater management; use Philadelphia's Long Term Control Plan; LID strategies as a go-by	х					
A requirement is critically needed for no net increases in stormwater discharge rate, volume, and pollutants for all new development for a 5-year storm. The WIP should require and enforce a no net increase in rate, volume, and pollutant loads from all new development. This will require mandatory on-site containment through environmental site design.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
The WIP should include improved water quality retrofit requirements for MS4 permits and for all developed lands including road construction or reconstruction, and all such MS4 permits should be required to meet the no net increase in rate, volume, and pollutants rule. For re-development, to the maximum extent practicable, no net increase in rate, volume, or pollutants should be required for a 5-year storm and offsets required where this no-net-increase-requirement cannot be met. Your WIP must include funding mechanisms to provide reasonable assurances that such urban retrofit will be accomplished.						
Your state WIP should include measures to expand MS4 jurisdiction over more developed lands, better septic system requirements, and improved growth control measures as these are essential and your WIP should require completely offsetting growth related loads elsewhere in each watershed in your state. The WIP should ensure that all federal and state facilities and public lands in the watershed undertake stormwater retrofits to meet TMDL allocations and state 2-year milestones. The federal and state facilities and lands should follow guidance developed by EPA pursuant to Section 438 of the Energy Independence and Security Act and Section 502 of Chesapeake Bay Executive Order (13508). All new government construction should meet a requirement for no net increase in rate, volume, or pollutants for a 5-year storm.						
Recapture stormwater for athletic field irrigation at Maryland public schools and parks.						
State should require locals to have a stormwater infrastructure fee.						
Add more money to the state transfer tax to help with stormwater management and upgrades. Statewide legislation is needed to increase this tax.		х				

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Need to add a fee to the transfer/property tax for counties to implement						
stormwater/stream restoration.						
Counties need more training opportunities in regard to stormwater practices (local contractors need training too).						
Double the Bay Restoration Fund to pay for upgrades.		Х				
State needs to develop an upgrade plan for smaller WWTPs.						
Need increased assistance to address failing septic systems.						
Allow dollars from the Bay Restoration Fund - Septic Carve Out to be used to help subsidize the conversion of entire communities from failing septic to sewer.						
Include urban tree canopy goals in 2011 milestones the way that D.C. has done.						
Recognize and take advantage of preexisting reporting requirements such as that for MS4 permits, etc.						
Wastewater Treatment						
Use Ferrate for waste water treatment.				Х		
Re-think how sewage overflows are being addressed; can stormwater be diverted from						
entering the sanitary system using LID; thereby reducing the overflows? Can						
technology be used in the sanitary system to monitor flows and predict weather events				Х		
so that weirs and diversions can be deployed to better use system capacity to avoid sewage overflows?						
Require stronger urban nutrient management plans.		х	Х			

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Require soil testing, slow release nitrogen in lawn fertilizers and banning phosphorous.		x	x			
Urban fertilizer management has the potential to drastically reduce pollutant loads from existing urban areas through a combination of 3 fertilizer management strategies:						
Ban on P except for new seedings; slow-release N formulations only						
Ban on sidewalk/driveway applications of fertilizers and clippings;						
Fertilizers applied only be certified applicators in conjunction with soil testing when not using Phosphorous free/Slow Release Nitrogen formulations. Yield: 25-50% reduction in TP and 10-20% reduction in TN. Precedents: Michigan, Minnesota, New York, Maine, Annapolis, and others (Most focus only on TP). Costs: basically free for TP and \$10/year for ¼ acre lot for TN.						
There needs to be a state-wide stormwater utility fee to provide the needed funding for stormwater controls in areas where none exist now. Locals have asked the state for guidance on this.						
Require lawn care companies to create a nutrient plan for private lawn care customers, and impose fines for companies and homeowners who do not comply with the plan.	х					
Place a huge tax on yard fertilizers. Think cigarette tax.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Measures to reduce or eliminate fertilizer usage on residential lawns, golf courses, and public lands should be included in your state's WIP, including measures to prohibit phosphorus in fertilizers sold for maintenance of such properties.						
Restrictions to reduce use of lawn fertilizer						
Prohibit marketing of fertilizer programs which adversely affect water quality.						
All Wastewater Treatment Plants (WWTPs) should be required to meet nutrient discharge limits of no more than 3.0 mg/l Nitrogen and 0.3 mg/l Phosphorus in the WIP.						
Connect existing rural villages with extensive ground water penetrating septic systems to sewer lines, and sewer systems with excess capacity.	х					
Submit state-wide legislation next General Assembly (2011) to increase funds to get people off of septics and onto the WWTPs, especially those on the Severn River.						
Move as many people from failing septic to sewer as possible.						
Retrofit every sewage pumping station with back up power supply.		Х				
Require all new systems to have Best Available Technology statewide,		Х				
Set a cap for septic loads and require offsets.	Х					
Maryland's WIP must include provisions that require all new and replacement on-site waste disposal systems (OSWDS) in the Chesapeake Bay watershed to be systems that utilize the best available technology (BAT) for nitrogen removal.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
For the WIP, increases in efforts within the Critical Areas to retrofit OSDS with BAT are being considered. Focusing on the Critical Areas will have the greatest possible impact on reducing nitrogen from OSDS. Requiring new OSDS to include BAT would slow the rate of increase of nitrogen discharged from OSDS but would not reduce the total nitrogen being discharged. Requiring that new OSDS offset their nitrogen discharge is being considered for the WIP. Offsets could effectively prevent increases in nitrogen associated with new construction.						
The WIP should include requirements for implementation of a mandatory septic inspection program for existing systems, with a requirement for a best available technology (BAT) system for nitrogen removal in failing systems. Inspection of existing OSDS is a worthwhile endeavor; however inspections of all systems would prove very expensive and will not reduce the amount of nitrogen discharged from OSDS. Maryland already has an inspection program for those OSDS potentially impacting shellfish harvesting waters. These are the systems that potentially have the greatest impact on Maryland's bays. In Maryland all BAT installed include operation and maintenance for five years. Further operation and maintenance requirements, including inspections are being considered to ensure the operation of these systems beyond the initial five years.						
Your WIP should contain requirements to evaluate existing clusters of septic systems for connection to centralized sewage treatment that uses Enhanced Nutrient Removal (ENR).						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Maryland's WIP should allocate WWTP pollution loads based on 2010 wastewater flows, assuming a concentration of 3.0 mg/l of nitrogen and 0.3 mg/l of phosphorus. Any increased nitrogen or phosphorus loads with flows beyond 2010 actual flow levels must be offset with equal or greater reductions from other sources.						
Your WIP must aggressively address and fund infrastructure upgrades to prevent and treat combined sewer overflows.						
When new construction occurs in areas where septic systems are needed, that septic system should be required to use the best available technology.						
Require nutrient reducing technologies for all new septic permits.						
Continue to fund advanced septic systems with the flush tax.						
Find a way to hold developers responsible for perpetual offsets, e.g., septics that create loads in perpetuity.	10.					
Smart Growth	*** *** ***					
Continue the Smart Growth model – ensure that it is truly "smart growth."	X					
Require a percentage of re-development and new development as compact/high-density.						
Make smart growth site design a BMP.	X					
PFA's must be accurate. Some PFA's have conflicts with GreenPrint preservation areas.		х				

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Need to ensure funding and technical assistance is available to towns and counties to implement smart growth strategies.	x					
Need continue the smart growth effort.	X					
Convene a panel of all the counties to get their data to enforce smart growth. Need to identify where density and development is occurring and encourage growth in targeted areas.	х					
Review Tampa Bay Program case study to develop market based incentives for green development.						
Prohibit new developers from building any of the following within 150 feet of the edges of streams, wetlands, or steep slopes: (1) sewage pumping stations; (2) impervious surfaces; (3) "stormwater management facilities."						
There needs to be more flexibility and variation in our zoning that make it possible to manage better human needs and environmental protection. As much as possible, zoning needs to be based on soils not economics. There needs to be more land use categories and sub-categories that are regionalized and can specify soft land use such as a hardware store without risking having a Home Depot built.	x					
Developer should pay for offsets and take into consideration the full suite of impacts—not just potential gains from turning ag to large lot development						
Offsets in new development borne by developers, but redevelopment offsets need to be accounted for differently by local governments.						
May need "offset plus" to deal with projected growth. Addressing growth through current planning efforts is not sufficient to meet goals.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Need to address smart growth and TMDL processes which may cause sprawl.						
Infrastructure needs to be addressed for smart growth to occur.						
Agriculture - Manure Management						
Better management and more efficient uses of poultry litter may mean that it does not have to be transported out of the watershed.	х					
Conduct a solid scientific study to show how much poultry litter is produced on an annual basis.	х					
Require third party certification on farms that nutrient management plans are in place and being implemented. More specifically, the chicken companies need to hold growers accountable for their plans before they certify the farm as a grower.		х				
Support windrowing of chicken manure in houses as a BMP to reduce litter.	X					
Recognize that dairy manure needs to be transported even though cost-share has ended. Need to reinstate the cost-share program for manure transport.	х	х				
Manure diary separation of liquid and solids – needs to be cost-shared because of high cost. It can then be dried and composted.				Х		
Find alternative uses of manure. We need to begin to develop these alternative uses. The MES project is a good start.				Х		
Manure must be stored in sheds or on slabs with a tarp.	X			Х		
When manure or sludge is applied, it must be incorporated into the soil within 24 hours or injected.					х	
No manure or sludge application should be allowed from November through March.	Х			_		

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Strictly enforce nutrient management in the chicken/hog and dairy corridors. MDE should be charged with confirming the accuracy of the plan and agree to a timeframe for plan implementation. Every landowner should be required to establish the amount of each pollutant currently being exported based on how much of the pollutant they are applying and their plan should be a reduction plan.	x					
Pyrolysis (O2 free charcoaling) of animal and plant wastes, such as poultry litter, cattle manure, and sewage sludge produces heat, biofuel and pure carbon matrix which chemically holds NOX, POX< COX and SOX. The pyrolysis product is "biochar". Biochar can be incorporated into soil to improve structure, water holding capacity, cation exchange capacity. The carbon remains in soils for years. The N and P are removed from the water going into the Bay yet are available to plants. Biochar plants are in WV, GA, IL, IN, and in Australia, Germany, etc.				x		
Your WIP should include a significant expansion of the CAFO designation to cover all but the smallest AFOs. All agricultural lands receiving manures from any AFO should be treated as a regulated entity/activity.						
Maryland should adopt requirements in its WIP for all land disposal of animal waste/manure that parallel Maryland's regulations under the Maryland Department of Environment for the land disposal of human sludge from advanced wastewater treatment facilities. These requirements should include soil tests to assure the land is not phosphorus saturated and that prohibit application on steep slopes, highly erodible soils, frozen ground, and in riparian buffers of up to 200 feet.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
The WIP should require that on any agricultural lands that receive human sludge and/or animal waste/manure, cover crops should be mandatory for a minimum of one year after application. Even with the use of cover crops, sludge and animal waste/manure should be required to be injected or incorporated into soils within 24 hours of application. Further, the practice of human sludge or animal waste/manure application to fields with excessive phosphorus levels must be stopped.						
Ban sewage sludge from farmland.						
Chicken companies should not take legal responsibility for manure.						
Re-evaluate the phosphorus index (multiple people recommended this).						
The WIP should require reducing phosphorus levels to agronomic requirements and soil tests before all applications of human sludge and/or animal waste/manure. These latter measures must be required to assure that phosphorus is not applied where not needed.						
Agriculture - General						
There needs to be a better accounting system for non cost-shared practices being implemented. Many BMPs that have cost-share are accounted for in nutrient and sediment reduction goals but those practices that are farmers are implementing on their own without cost-share are not necessarily well captured.	x					
Education and outreach to the agricultural community is needed regarding what the 2-Year Milestones and TMDL mean.	х		х			
MDA needs to have a better education campaign to get information out to farmers on what they should be doing on their farms and what practices would work best.	Х		х			

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Conduct on-farm assessments and make suggestions on BMP practices to be implemented, such as cover crops, buffers, litter injection, feed modification, litter bailing, etc.	х					
More strongly enforce annual nutrient management reporting.	х				Х	
Identify farms, through property assessment records or tax records that are not currently covered by a nutrient management plan and enforce the requirement of a plan on those farms.	х					
Commodity Cover Crops – the state should place greater emphasis on commodity cover crops. Although Bob Kratovil's research shows that in most years a farmer does not offset the \$18-20 cost to apply fall fertilizer, this is not a constant number but changes related to the price of wheat and fertilizer. By providing a commodity cover crop payment and allowing farmer's to apply fertilizer in the spring as the crop needs it will garner considerably more acreage that does not use fall fertilizer.	x					
Barley for ethanol – Osage BioEnergy will be starting production of ethanol in about two weeks using barley as the primary feedstock. This plant will provide 300,000 additional acres of barley in the watershed, some of which will be grown in Maryland. There is the potential for other bioenergy projects to help the farm economy and the Bay but none as immediate as the Hopewell, Virginia plant.				х		

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Poultry Litter – the value of poultry litter for crop production goes beyond N, P & K. Most fields outside the primary poultry growing area – and many within it, still require added P. Poultry litter use on crops should be its primary use. The transportation program is a great success at providing nutrients on farms that need it. Based on our research findings, farmers will need to adjust their use to incorporate manure as the technology becomes available.	x					
Fertilizer use – the use of GPS, variable rate application equipment, and stabilized fertilizer products are all tools to help farmers improve their nutrient efficiency. Currently there is no state incentive for non-structural Best Management Practices other than cover crops. The state needs to consider cost-share, tax subtraction modifications, or other ways to help farmers offset the cost of this new technology.	х				Х	
Increase SCD positions for technical assistance. Out of the 111 mandated SCD positions, only 73 positions are filled.		х			Х	
Change the reporting format to document the correct practices being implemented on farms.	х				Х	
Continue the Conservation Tracker effort – it is a good system and easy to use.	Х					
Report all acres in farm plans – not just permitted acres. Maximize the amount of acres for eligible reporting.						х
Expand the FSCAP (Farm Service Certification and Assessment Program) to maximize inspections to ensure farms are in compliance.	Х				Х	
Promote the use of grain sorghum in the Bay watershed as a substitute for corn and work with purchases (i.e. Perdue) to create a market for its sale to reduce the amount of nitrogen in the Bay.	x					

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Use more agricultural landscape structures - hedgerows, swales, fallows, buffers. Increasing these landscape structures on farms and in urban-suburban landscapes will not only help with the issues of biodiversity, food systems security, but will have great benefit to Bay restoration efforts by creating nutrient sinks in and around sensitive areas, on working lands and in Plant more trees to buffer streams.	x					
Fence streams to keep out livestock. Border farm fields with 20 to 30 foot rows of switch grass. This would reduce run-off and capture excess nutrients while providing a viable crop for the production of cellulose based ethanol. This crop promises a 70% gain over petroleum based products used to produce it, rather than the 10% gain realized by corn based ethanol.	X					
Announce a State and Federal commitment to conduct a study on farm gate nutrient management (FGNM), not limited to the Chesapeake watershed.	Х					
It is equally important that assessment and accountability of all CAFOs and all other federal and state regulated agricultural activities be increased. Current state programs do not provide adequate assurance that the CAFO permits, particularly related to land application, and other state regulations of agricultural activities are being enforced. Enforcement must be assured.						
Your WIP should mandate whole-farm water quality plans for all agricultural lands including the next generation of nutrient management, with clear targets, a reasonable implementation schedule, progress checks, and enforcement. This is critical to restoring the Bay and should be mandatory.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Identify funding sources to strengthen Soil Conservation Districts and NRCS staffing to						
meet the needs of the Agricultural community. Resources need to be made available to small farmers so that they can comply.						
Expand reward programs to Ag producers that comply.						
Make more Ag BMPs mandatory.						
Improve soil testing method, document it in the WIP.						
SCDs need to be proactive in identifying Ag operations in need of BMPs.						
Greater accountability and verification of performance of agricultural BMPs is essential and must be required in your WIP.						
Require all cows to be 100% grass-fed.						
Plant more cover crops – Mandatory on corn and manured acres		Х				
Condition the application of the preferential agricultural assessment on farms to the adoption/installation of water quality BMPs and establish a date by which the water quality BMPs contained in soil/water conservation plans or farm resource mngt plans must be implemented. For farms without soil/water conservation plans require, after the next assessment cycle, a soil/water conservation plan be written. If, by the following assessment cycle, the soil/water conservation plan is not prepared or if the water quality components of the soil/water conservation plans are not installed, the property owner shall lose the lower tax assessment.						
Perform the Inventory - Assessment & Planning Tool developed by Doug Valentine on every farm in the watershed. For a farmer to maintain his agland tax assessment he or she must have this planning tool performed.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Abandon the concept of using voluntary BMP's, none of which are quantifiable to implement the TMDL, which is by law a federal mandate under the Clean Water Act. Instead, send a questionnaire to each landowner asking him or her to state how much nitrogen, phosphorus, and manure he or she is applying to his or her land. The State would have to review the landowner responses for reasonableness. After the TMBL is established for each sector, it then becomes relatively simple to assign a nutrient reduction number to each landowner to achieve the mandatory level.						
Natural Filters						
Increase tree canopy cover in Maryland to exceed 50% by retrofitting parking lots. Concentrate locating new trees on large planting islands in existing parking lots to provide 50% shading of the parking lots. Require adequate pervious area (150-200 sq ft), decompaction and soil amendments around the trees to assure the trees will reach maturity and remain healthy.		x				
Increase the 'Buffer in a Bag' Program through the MD DNR to include all residents, not just those who are stream or waterway adjacent to decrease sediments.						
Expand the current nutrient trading program to include special provisions for forest landowners to provide them with monetary compensation for the nutrient reduction services that their land is providing to residents of the Chesapeake Bay watershed. This also would provide an incentive for forest landowners to keep their land in forest and not in houses.					Х	
Better oversee designated forest conservation areas.					Х	

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Plant more trees on State-owned lands that are not being used, leased out to farmers, and are highly susceptible to erosion.	х					
Modify the state land preservation programs (MALPF, Rural Legacy) by establishing a water quality BMP set-aside component, whereby a percentage of the monies paid to new enrollees in these preservation programs is sequestered and dedicated to implement the devices, practices, structures, or facilities needed to protect and restore water quality, in-stream and riparian habitat other natural filters.					Х	
Use oysters as a potential BMP to help close the nutrient gap.				Х		
Maryland's WIP should require a no net loss of forest coverage in each Bay watershed of the 92 waterway segments to achieve the nutrient and sediment TMDLs by a date certain to meet "reasonable assurance" expectations. Your WIP also should contain detailed measures to expand forested buffer coverage to at least 85% of all the shores of the Bay and its tributaries.						
Need to protect existing forest and forest buffers. Stop zoning which allows for these buffers to be removed.						
Pass a law that requires a hundred foot buffer strip around all rivers, Bays, etc.		Х				
Increase riparian buffers statewide – not just on farms but on newly developed land as well.						
Create stricter stream set backs for growth.						
Pass a law that requires a hundred foot buffer strip around all rivers, Bays, etc.						

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Offer a tax deduction or credit for homeowners that implement a living shoreline.						
Maryland's WIP should target funds, such as from Maryland's Program Open Space and Agricultural Land Preservation Fund, for the fee simple or easement purchase of sensitive lands such as forests and wetlands on private lands and farm lands, especially those bordering the Bay and its rivers. Acquisitions should take into consideration State Wildlife Action Plans and Green Infrastructure maps that have been updated to reflect the implications of climate change and expected sea level rise.						
<u>Air</u>						
Evaulate and incorporate energy reduction practices in development. This is a low hanging fruit and will reduce our NOx outputs.	x					
Have stricter air deposition strategies since this is 1/3 of the nitrogen into the Bay.	X					
The WIP should contain provisions for better control of air emissions by better regulating and enforcing emission controls from all sources in your state.						
All new stationary sources of air emissions in your state that contribute increased nitrogen to the Bay should be offset and your WIP must include provisions for accomplishing this offset.						
Need Federal requirements to help address air deposition from outside the watershed.						
<u>Other</u>						
Have discussions with local governments on how to reduce loads from discharges. Who should pay?	х					
Set a timeline for consequences for failure to meet the WIP's/TMDL.	Х					
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Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Conowingo Dam is a problem which needs to be dealt with by Excelon and						х
Pennsylvania.						
BRAC will be a huge burden for LOCAL GOVERNMENTS; they should receive a lot of financial resources to battle the stormwater issue.	x					
Support the Cardin-Cummings Bill.	Х					
EPA is revising the overall Urban acreage and will revise the Model in 2011. However, urban pollutant loads are directly proportional to acreage; therefore, if the acreage changes by 200-300%, the loads will change proportionately. Make sure the model reflects this.	х					
MDA needs to revise its pest-control policies to involve stakeholders in the process of making treatment decision on a more regular basis.						х
Lease deep water oyster farm plots.						
Develop a year-round, grow-it-local greenhouse industry to supply local, more nutritious food to Maryland citizens.	x					
Encourage use of gray water for toilet flushing, lawns, gardening. Show people how to install systems to vent shower water to toilets, and out the house to gardens, lawns. (Recommended 3 times)				х		
WRE Standards need to be upgraded to become more accurate and ensure TMDL limits aren't exceeded, and MD must require offsets from all new sources of development.		х				
Incorporate the nitrogen contribution of wildlife into the TMDL model, and possibly work with the EPA to manage population levels of species like the Canada Goose and the white-tailed deer.	х					

Recommendation	Already happening	Legislative Changes	Education/Outreach	Research and Development	Program Refinement - enforcement, validation, or funding suggestion	Unrelated to MD TMDL
Crab pots should be banned from the tributaries, as many sit on the end of piers untended, and inadvertently trap muskrats, turtles, diving birds, etc.						х
Pressure the state of Virginia to stop menhaden fishing NOW while there is still a chance for the species to recover.						Х
Avoid undue burden on businesses in order to comply with TMDL, e.g., monitoring for pollutants no associated with a given industry						
Move nutrient management from Coop Extension to the SCDs so both subjects can be addressed jointly.						
Roadside ditch maintenance; need standard requirement for public works folks						
Sensitive Area Ordinance – see model from State of Washington						
Review the La Plata agreement to look at benefits of LID on development basis vs. house by house.						